

Ethno-Horticultural and Olericultural Concepts in Folklores of Orissa

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ABSTRACT Oriya folklores and folk proverbs concerning aspects of farming schedule, climate, soil and habitat, germplasm selection and farming methods including interim care for cultivation of around 30 different varieties of horticultural and Olericultural produce of Orissa state, India are highlighted. They include fruits, vegetables, pulses, oil seeds, condiment, fibres and some cash crops. The present relevance and utility of such ancient knowledge codified in those folklores are analysed.

INTRODUCTION

Horticulture and Olericulture are ancient pursuits in India. The country is considered as the home of many tropical and sub-tropical horticultural crops (Singh, 1974). It holds monopoly in its mango crop of numerous variety having a prominent status in Bihar and Uttar Pradesh (U.P.) State. Oranges from Nagpur, banana from South India, litchi, guava and papayas from the Gangetic plains of U.P, Bihar and West Bengal are some well known varieties of fruits produced in this country. Similarly, Orissa is famous for its coconut, betel leaf and many typical fruits as well as seasonal vegetables produced by its farmers from ancient time. The cultivation method of those crops have been developed through years of trial depending upon the prevailing geo-climatic conditions of the state. This knowledge is further transmitted orally from generation to generation in the form of folklores among the rural and peasant communities who are traditional farmers. The present endeavour is a collection and analysis of a few such interesting folklores and folk sayings concerning horticultural and Olericultural practices along with the analysis of their present relevance.

METHODS OF STUDY AND RESULTS

Folklores relating to various aspects of natural, cultural, mythological, traditional and other activities of people that prevail in Indian folk life (Jain, 1996). It is one of the suitable means to propagate and educate the rural people and farmers about any message or information related

to their vocational activities. The present communication depicting the cultivation of different fruits and vegetables are some of the numerous poetic versions of ancient wisdoms still alive in rural Orissa. This folk science has originated through years of trial and error method by the farmers of the state. They were subsequently codified to folklores by some anonymous literary genius of this region and transmitted through words of mouth which exist till date.

The folklores were collected through extensive survey of different interior localities of rural Orissa from 2001 to 2005. Respondents were selected basing on their age and experience and who are basically traditional farmers. The data were collected following the standard prescribed procedure (Kothari, 1990) i.e. through personal interviews and participant observation. The help and assistance of the local guide and language interpreters was sought due to variation in the dialect of different regions. Folklores already collected and compiled by previous workers (Dash, 1976, ; Dash, 1985; Mishra, 1977) were consulted and scrutinised for new findings. The most relevant ones concerning the subject are recorded.

Twenty five folklores in form of couplets, quatrain or a stanza are presented in spoken Oriya language with their transliteration followed by word meaning and explanation along with the botanical names of the plants involved.

FARMING SCHEDULE

1. Kanye Kadali
Mithune Amba

(*Kanye* - Sixth solar month i.e. during Sept.-Oct; *Kadali*- banana, *Mithune*- Third solar month i.e. during June-July; *Amba*-Mango)

Planting of banana (*Musa sapientum* L., Musaceae) during Sept-October and mango (*Mangifera indica* L., Anacardiaceae) in June - July is suitable for their viability and desired growth of saplings.

2. *Rabi buniba sudha*
Asbina masa madhya

(*Rabi*-winter crop particularly pulses; *buniba*-to sow; *sudha*-during; *Asbina*-7th Oriya Lunar month i.e. during Sept-Oct; *masa*-month; *madhya*-with in)

Rabi or winter crops including green gram (*Vigna radiata* L., Fabaceae), black gram (*Vigna mungo* L., fabaceae) and horse gram (*Dolichos biflorus* L., fabaceae) should be sown during Sept.-October for better growth and production.

3. *Potala roile phagune*
Phala phalai duigune

(*Potala*-Pointed gourd; *roile*-transplant; *Phagune*-12th Oriya Lunar month i.e. during Feb-March; *Phala*-fruit; *phalai*- fruiting; *duigune*-doubles)

Transplantation of pointed gourd (*Trichosanthes dioica* Roxb., cucurbitaceae) during Feb-March doubles the production.

4. *Tanka darakara thile pua*
Caitra masare maka rua

(*Tanka*-money; *darakara*-required; *thile*-if; *Pua*-O'son; *Caitra*-1st Oriya Lunar month i.e. during March-April; *masare*-month; *maka*-maize; *rua*-transplant)

Caitra (March-April) is the most suitable month for sowing of maize (*Zea mays* L., Poaceae) as per the geo-climatic condition of the state.

5. *Kodale mana, Tile hala*
Asbina Kartike ropa cancala
Maghare rua Krusna tila
Chaire Lau besi phala
Dhipa jamire ropa lanka
Mane narakhi kichi sankha

(*kodale*-by spade; *mana*-giant taro; *Tile*-to Sesame; *hala*-plough; *Asbina*-Sept-Oct; *Kartike* -8th Lunar month i.e.during Oct.-Nov.; *ropa*-plant; *Cancala*-quickly, *Maghare*-in 11th lunar month i.e, Jan-Feb.; *rua*-plant or sow; *Krusna*-black; *chaire*-in shade; *Lau*-Bottle gourd; *besi*-more; *phala*-fruiting; *Dhipa*-high; *jamire*-land; *Lanka*-Chilli; *mane*-mind; *narakhi*-without; *kichi*-any; *sanka*-doubt)

Planting giant taro (*Alocasia indica* Roxb.,

Araceae) by howing and sowing sesame (*Sesamum indicum* L, Pedaliaceae) by ploughing the land during Sept-October and Oct-November respectively are salubrious to the crops. Similarly black sesamum (*Sesamum indicum* L, Pedaliaceae) in 'Magha' (Jan.-Feb), bottle gourd (*Lagenaria vulgaris* ser., Cucurbitaceae) in shade and chilli (*Capsicum annum* L. Solanaceae) in high sloppy land are some of the favourable times, techniques, tools and habitats for cultivation of tuber crop, oilseeds, vegetables and condiments in Orissa.

6. *Kapa Lagaile Bhadraba mase*
Nibamsa hoe sabamse

(*Kapa*- cotton; *Lagaile*- planting; *Bhadraba*-6th Lunar month i.e during Aug-Sept.; *mase*-month; *Nibamsa*-loss of family, *hoe*-shall happen; *sabamse*-entire family members)

Planting cotton (*Gossypium arboreum* L., Malvaceae) in Bhadraba' (Aug-Sept.) is less productive and hence incur loss to the grower.

CLIMATE

1. *Rasi muthi, Biri cauthi*
Barasa hele napare uthi

(*Rasi* -Sesame; *muthi*-handful; *Biri*-Black gram; *cauthi*-one fourth of handful; *Barasa*-rainfall; *hele*-occurrence, *napare*-can not; *uthi*-germinate)

Sesame (*Sesamum indicum* L., Pedaliaceae) and Black gram (*vigna mungo* L., Fabaceae) can not germinate, if there will be rain immediately after their sowing.

2. *Nalita, muham balita*
(*Nalita*-Jute producing plant; *muham*- mouth; *balita*-become narrow)

Rain fall after a long span of dry weather is beneficial for jute (*Corchorus olitorius* L., Tiliaceae) crop.

3. *Bhumire nathiba batara*
Tebe lagaiba patara

(*Bhumire*-in soil; *nathiba*-should not be; *batara*-soil moisture; *tebe*-then; *lagaiba*-can plant; *patara*-Tobacco)

Tobacco (*Nicotiana tabacum* L., Solanaceae) saplings should be planted when the soil is free from excess moisture.

SOIL AND HABITAT

1. *Alu ropile Bamsa bane*
bahuta phale alpadine

(*Alu*-Yam; *ropile*-transplant; *Bamsa*-Bamboo; *bane*-grove; *bahuta*-plenty; *phale*-production; *alpadine*-few days)

Planting of yam (*Dioscorea bulbifera* L., Dioscoreaceae) in bamboo grove leads to good harvest of crop.

2. *Chaya sthana dekhi yebe Olua ropiba*

Bahuta phala tahimru niscaya paiba

(*Chaya sthana*-shady place; *dekhi yebe*-selecting; *Olua*-Giant arum; *ropiba*-planting; *bahuta*-plenty; *phala*-produce; *tahimru*-from that; *niscaya*-sure to; *paiba*-shall get)

Planting Giant Arum (*Amorphophallus campanulatus* Roxb., Araceae) in shade gives good return to the farmer.

3. *Khalare Nalita, dhipare lanka*

Baumsa badi mutha thile banka

(*Khalare*-in lowland; *Nalita*-Jute; *dhipare*-in high land; *Lanka*-Chilli; *Baumsa*-bamboo badi-walking stick; *mutha*-grip portion; *thile*-if; *banka*-curved)

Low land with stagnant water is suitable for jute (*Corchorus olitorius* L., Tiliaceae) cultivation and high land with good drainage facility is suitable for Chilli (*Capsicum annuum* L., Solanaceae).

4. *Nadi kulare Saru gacha*

Ropante tini hata uca

Ta mule paumsa dia

Manaicha phala nia

(*Nadi kulare*-river bank; *Sarugacha*-Arum plant; *ropante*-by planting, *tini*-three; *hata*-hand measurement; *uca*-high; *Ta*-its'; *mule*-base; *paumsa*-cowdung ash; *dia*-add; *manaicha*-as desired; *phala*-produce; *nia*-take or get)

Planting edible Arum (*Colocasia esculenta* L., Araceae) in river bank is conducive to its luxurious growth. More over adding cowdung ash to its base initiates rich harvest of crop.

GERMPLASM SELECTION

1. *Lamba Nadia, Caka Gua*

(*Lamba*-Long; *Nadia*-Coconut; *Caka*-oval or round; *Gua*-Areca nut)

Coconut (*Cocos nucifera* L., Arecaceae) having greater length and oval Arecanut (*Areca catechu* L., Arecaceae) are good variety of seeds for plantation.

2. *Denga Nadia, bangara Gua*

majhi majhia tala

Manji lagai gacha utarile

phaluthiba kala kala

(*Denga*-tall; *nadia*-Coconut; *bangara*-dwarf; *Gua*-Areca Nut; *majhi majhia*-medium high; *Tala*-Palmyra palm; *Manji*-seed; *lagai*-planting; *gacha*-seedling; *utarile*-growing; *phaluthiba*-shall yield; *kala kala*-for long period)

Seed from tall coconut (*Cocos nucifera* L., Arecaceae) tree, dwarf Arecanut (*Areca catechu* L., Arecaceae) plant and from palmyra Palm (*Borassus flabillifer* L., Arecaceae) tree of medium high are suitable for raising healthy and viable seedlings for replantation.

3. *Akhu nama Khari*

Khara barasare bege namari

Bilua nanara muhamku tana

Casa arajai dhana kahana

Muli rakhi yebe badhae kheta

Alapa sramare pindhai neta

(*Akhu*-Sugar Cane; *nama*-name or variety; *khari*-a variety; *khara*-Sun; *barasare*-rain; *bege*-quickly; *namari*-shall not die; *Biluananara*-Jackle's; *muhamku*-mouth; *tana*-hard; *casa*-farmer; *arajai*-income; *dhana kahana*-sufficient money; *mulu*-stock; *rakhi*-leaving; *yebe*-if; *badhae*-grows; *kheta*-farm; *alapa*-less; *sramare*-labour; *pindhai*-wears; *neta*-good dress)

A particular variety of Sugarcane (*Saccharum officinarum* L., Poaceae) named 'khari' is moderately resistant to drought and flood. It is also less affected by pest like jackles due to its hardness. More-over, due to the high yielding character, it is most suitable to the farmer.

FARMING METHODS INCLUDING INTERIM CARE

1. *Hate cakhande kholiba gata*

Patara khandike nadeba hata

Cakhande chadi bhangiba bhanda

Tebese dekhiba kadali penda

(*Hate*-one hand measurement; *cakhande*-one span; *kholiba*-to dig; *gata*-pit; *patara*-leaf; *khandike*-one piece; *nadeba*-donot; *hata*-touch; *chadi*-leaving; *bhangiba*-detach; *bhanda*-sheath containing layers of flower; *tebese*-then; *dekhiba*-can see, *kadali*-banana; *penda*-bunch)

Plant a banana (*Musa sapientum* L., Musaceae) in a pit of around two feet depth in soil, donot cut the leaves and detach the spadix leaving six inch gap for proper growth of fruit.

2. *Kodie hata kari phanka*

Amba, Panasa poti dekha

Gochaku gacha yebe lagai

Tebese phala phaliba nahim

(*Kodie*-twenty; *hata*-hand; *kari*-make; *phanka*-gap; *amba*-mango; *Panasa*-Jack fruit; *poti*-planting; *dekha*-observe; *Gachaku gacha* -plant to plant; *yebe*-if; *lagai*-touch; *tebese*-then, *phala*-fruit; *phaliba nahim*-shall not bear fruit)

Mango (*mangifera indica* L., Anacardiaceae) and Jack fruit (*Artocarpus heterophyllus* Lam., Moraceae) should be planted at a distance of twenty hands or around thirty feet gap to prevent their branches to touch each other for proper growth and good fruiting.

3. *Calisa oda mula*
tahimra adha gula
tahimra adha tula
tahimra adha dhana
kichi nathai pana

(*Calisa*-forty; *oda*- times of ploughing; *mula*-radish; *tahimra*-that's; *adha*-half; *gula*-potato; *tula*-cotton; *dhana*-paddy; *kichi nathai*-without any; *pana*-betel plant)

Ploughing the land forty (40) times by traditional plough for radish (*Raphanus sativus* L., Brassicaceae), twenty times for potato (*Solanum tuberosum* L., Solanaceae), ten (10) times for cotton (*Gossypium arboreum* L., Malvaceae) and five (5) times for paddy (*Oryza sativa* L., Poaceae) are essential while in case of betel (*Piper betel* L., Piperaceae) there is no necessity of ploughing the land.

4. *Mulara bhumi tula*
Akhura bhumi dhula

(*Mulara*-Radish; *bhumi*-soil; *tula*-like cotton; *Akhura*-sugarcane, *dhula*-dust)

The soil for growing radish should be as light as cotton and for the sugarcane, it must be ploughed repeatedly to dust.

5. *Bahala sorisa, patala Rai*
Laga lagi kari karpasa roi

(*Bahala*-crowded or thick; *Sorisa*-mustard; *patala*-thinly; *rai*-Rape seed; *lagi lagi kari*-contiguous to each other; *karpasa*-cotton; *roi*-sow or transplant)

Thick sowing of mustard (*Brassica campestris* L., Brassicaceae), thin seeding of rape seed (*Brassica juncea* L., Brassicaceae) and closer transplantation of cotton (*Gossypium arboreum* Malvaceae) are advisable for proper growth and harvest of respective crops.

6. *Ghana kolatha birala kapa*
Tapaka maka lage eka

(*Ghana*-crowded or dense; *Kolatha*-Horse gram; *birala*-thin; *kapa*-cotton; *tapaka maka*-maize; *lage*-planted; *eka*-single)

Thick or crowded sowing of horse gram (*Dolichos biflorus* L., Fabaceae), thin seeding of cotton (*Gossypium arboreum* L. Malvaceae) and transplanting maize (*Zea mays* L. Poaceae) with larger gaps are essential for good harvest.

7. *Guare gobara, Baumse mati*
Bamjha nadiara ceraku kati

(*Guare*-Areca nut plant; *gobara*-cowdung; *Baumse*-in Bamboo; *mati*-soil; *bamjha*- sterile or unproductive; *ndiara*-coconuts; *ceraku*-root; *kati*-cut)

Adding cow dung at the base of Areca nut (*Areca catechu* L., Arecaceae) plant and soil to Bamboo (*Bambusa vulgaris* sch. Poaceae) roots are beneficial. The sterility of coconut (*Cocos nucifera* L. Arecaceae) can be removed by cutting some of its roots.

8. *Machara jale Lau badhe*
Dhana paca jale jhala cadhe

(*Machara* -fish; *jale* -water; *Lau*-bottle gourd; *badhe*-grow well; *Dhana* -paddy; *paca*- rotten, *jhala*-burning sensation *cadhe*-increases)

Bottle gourd (*Lagenaria vulgaris* ser Cucurbitaceae) plant grows well by pouring water used in processing fish and chilli (*Capsicum annum* L., Solanaceae) with rotten water released during paddy processing.

9. *Atha bihuda, Sohala koda*
Tebe khaiba baigana poda

(*Atha*-eight; *bihuda*-puddling; *sohala*-sixteen; *koda*-hoeing; *tebe*-then; *khaiba*-eat or consume; *baigana*-brinjal; *poda*-roast).

Eight times puddling or harrowing and sixteen times of hoeing the plot are necessary for proper growth and fruiting of brinjal (*Solanum melongena* L., Solanaceae) crop.

DISCUSSION

Twenty five ancient Oriya folklores concerning five different aspects of horticultural and Olericultural produce are highlighted. A total of 30 plant species belonging to 27 genera and 15 families are dealt with like Solanaceae (4), Poaceae (4), Arecaceae(3), Araceae(3), Brassicaceae (3), Fabaceae(3) and Cucurbitaceae (2) respectively. The remaining families are represented by one species each. Moreover, out of 30 species enumerated through these folklores, there are five types of fruits, nine vegetables, two grains, three oilseeds, three pulses, one spice, three fibre crops and four different cash crops.

Fruits and vegetables are a vital source of

minerals, vitamins and dietary fibres and play an important role in human nutrition in supplying adequate quantity of free radicals, antioxidants and micro-nutrients. A number of studies have shown that, the consumption of vegetables especially cole crops reduces the risk of cancer in addition to above supplements. It is observed that, during the past three decades, India has made commendable progress in horticultural and Olericultural production enabling to secure second position in the world, producing around 91 million tons of vegetables per year. But in contrast, the productivity of different vegetables in our country is comparatively lower than the world average and its availability to the common man is much less than the required amount of a minimum ten ounces per adult per day, a constituent part of balanced diet. With the population growth of 1.8% per year, it is estimated that the domestic vegetable requirements is likely to rise from the current level to 151-193 m.t. by 2030. So the prospects of meeting the enhanced future requirement is quite bleak in view of India depending on vegetable imports amounting to around 678 million dollars to satisfy its present need (Shanmuga Sundaram, 2004).

Realising the above necessities, scientists are constantly trying to enhance the production of horticultural crops introducing newer methods and hybrid and transgenic varieties, developed from time to time. But they are yet to be universally accepted as considered not totally free from any controversy and short comings. In contrast, indigenous varieties of fruits and vegetables and their cultivation techniques which are developed through centuries of trial and error methods in specific geo-climatic conditions are still followed by the peasantries of the state. Because of their yielding desired result with moderate effort and

expenditure, the folk knowledge are relevant even today as they have stood the test of time and met the requirement of people. A time has come to realise the importance of amalgamating the folklore knowledge with that of the modern knowledge to augment the effort in increasing the production and solving the problem of impending food deficiency. Moreover, collection, codification and analysis of such folklores in wider scale are urgently required before they go to oblivion with the fast changing social scenario in rural Orissa. (Mohanty, 2000, 2001, 2002, 2003).

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